

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 33. (canceled)

34. (currently amended) A database management method for managing data in a database having a plurality of data areas of a storage in a data management system, comprising the steps of:

adding bookmark information in each of said plurality of data areas ~~bookmark information~~, said data areas having data pieces generated in time series and said bookmark information including first time information at which said data pieces were generated and status information of an empty status of data in each data area;

reading, in response to a request for storing data in a data area, said status information ~~thereby~~ to decide whether said data can be stored in said data area, and when said status ~~does indicate~~ indicates an empty status, storing said data in said data area and storing second time information at which data is stored in said data area in said bookmark information of said data area, wherein said status information is changed to indicate that said data area is not empty; and

providing, in response to a retrieval request for data stored ~~between~~ within a time period in said database, data from a data area when said second time

information of said bookmark information is determined to be within said time period after reading said bookmark information.

35. (currently amended) A database management method for managing data in a database having a plurality of data areas of a storage in a data management system, comprising the steps of:

adding bookmark information in each of said plurality of data areas ~~bookmark information~~, said data areas having data pieces generated in time series and said bookmark information including first time information at which said data pieces were generated and status information of an empty status of data in each data area;

reading, in response to a request for storing data in a data area, said status information ~~thereby~~ to decide whether said data can be stored in said data area, and when said status ~~does indicate~~ indicates empty status, storing said data in said data area and storing second time information at which data is stored in said data area in said bookmark information of said data area, wherein said status information is changed to indicate that said data area is not empty; and

setting, in response to a request for deletion of data stored ~~between~~ within a time period in said database, said status information to indicate that said data area is empty when said second time information of said bookmark information is determined to be within said time period after reading said bookmark information.

36. (currently amended) A database management system for managing data in a database, comprising:

a storage being in an area of said database and having a plurality of data areas;

means for adding bookmark information in each of said plurality of data areas ~~bookmark information~~, said data areas having data pieces generated in time series and said bookmark information including first time information at which said data pieces were generated and status information of an empty status of data in each data area;

means for reading, in response to a request for storing data in a data area, said status information ~~thereby~~ to decide whether said data can be stored in said data area, and when said status ~~does indicate~~ indicates empty status, storing said data in said data area and storing second time information at which data is stored in said data area in said bookmark information of said data area, wherein said status information is changed to indicate that said data area is not empty; and

means for providing, in response to a retrieval request for data stored ~~between~~ within a time period in said database, data from a data area when said second time information of said bookmark information is determined to be within said time period after reading said bookmark information.

37. (currently amended) A database management system for managing data in a database, comprising:

a storage being in an area of said database and having a plurality of data areas;

means for adding bookmark information in each of said plurality of data areas ~~bookmark information~~, said data areas having data pieces generated in time series and said bookmark information including first time information at which said data pieces were generated and status information of an empty status of data in each data area;

means for reading, in response to a request for storing data in a data area, said status information ~~thereby~~ to decide whether said data can be stored in said data area, and when said status ~~does indicate~~ indicates empty status, storing said data in said data area and storing second time information at which data is stored in said data area in said bookmark information of said data area, wherein said status information is changed to indicate that said data area is not empty; and

means for setting, in response to a request for deletion of data stored ~~between~~ within a time period in said database, said status information to indicate that said data area is empty when said second time information of said bookmark information is determined to be within said time period after reading said bookmark information.